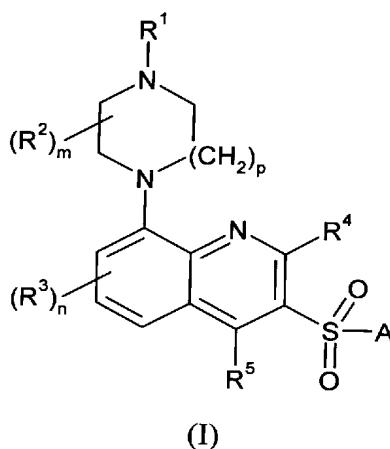


Amendments to the Specification:

Please amend the paragraph spanning page 1, line 11 to page 2, line 16 of the specification to read as follows:

A structurally novel class of compounds has now been found which also possess affinity for the 5-HT₆ receptor. The present invention therefore provides, in a first aspect, a compound of formula (I) or a pharmaceutically acceptable salt thereof:



wherein:

R¹ represents -C₁₋₆ alkyl substituted by one or more (e.g. 1, 2 or 3) halogen or cyano groups, -C₀₋₄ alkyl-C₃₋₈cycloalkyl, -C₂₋₄ alkyl-oxy-C₁₋₄ alkyl, -C₁₋₄ alkyl-aryl, -C₁₋₄ alkyl-heteroaryl or -C₀₋₄ alkyl-heterocyclyl;

wherein said cycloalkyl, aryl, heteroaryl or heterocyclyl groups of R¹ may be optionally substituted by one or more (e.g. 1, 2 or 3) halogen, C₁₋₆ alkyl, C₁₋₆ alkoxy, cyano, amino or trifluoromethyl groups;

R² represents hydrogen or C₁₋₆ alkyl;

m represents an integer from 1 to 4, such that when m is an integer greater than 1, two R² groups may instead be linked to form a CH₂, (CH₂)₂ or (CH₂)₃ group;

R³, R⁴ and R⁵ independently represent hydrogen, halogen, cyano, -CF₃, -CF₃O, C₁₋₆ alkyl, C₁₋₆ alkoxy, C₁₋₆ alkanoyl or a group -CONR⁶R⁷;

R⁶ and R⁷ independently represent hydrogen or C₁₋₆ alkyl or R⁶ and R⁷ together with the nitrogen to which they are attached may form a nitrogen containing heterocyclyl or heteroaryl group;

n represents an integer from 1 to 3;

p represents 1 or 2;

A represents an -aryl, -heteroaryl, -aryl-aryl, -aryl-heteroaryl, -heteroaryl-aryl or -heteroaryl-heteroaryl group;

wherein said aryl and heteroaryl groups of A may be optionally substituted by one or more (e.g. 1, 2 or 3) substituents which may be the same or different, and which are selected from the group consisting of halogen, hydroxy, cyano, nitro, trifluoromethyl, trifluoromethoxy, C₁₋₆ alkyl, trifluoromethanesulfonyloxy, pentafluoroethyl, C₁₋₆ alkoxy, arylC₁₋₆ alkoxy, C₁₋₆ alkylthio, C₁₋₆ alkoxyC₁₋₆ alkyl, C₃₋₇ cycloalkylC₁₋₆ alkoxy, C₁₋₆ alkanoyl, C₁₋₆ alkoxycarbonyl, C₁₋₆ alkylsulfonyl, C₁₋₆ alkylsulfinyl, C₁₋₆ alkylsulfonyloxy, C₁₋₆ alkylsulfonylC₁₋₆ alkyl, arylsulfonyl, arylsulfonyloxy, arylsulfonylC₁₋₆ alkyl, C₁₋₆ alkylsulfonamido, C₁₋₆ alkylamido, C₁₋₆ alkylsulfonamidoC₁₋₆ alkyl, C₁₋₆ alkylamidoC₁₋₆ alkyl, arylsulfonamido, arylcarboxamido, arylsulfonamidoC₁₋₆ alkyl, arylcarboxamidoC₁₋₆ alkyl, aroyl, aroylC₁₋₆ alkyl, arylC₁₋₆ alkanoyl, or a group CONR⁸R⁹ or SO₂NR⁸R⁹, wherein R⁸ and R⁹ independently represent hydrogen or C₁₋₆ alkyl or R⁸ and R⁹ together with the nitrogen atom to which they are attached may form a nitrogen containing heterocyclyl or heteroaryl group;
or solvates thereof.

Please amend the paragraph on page 3, lines 18-25 of the specification to read as follows:

Preferably, R¹ represents

C₁₋₆ alkyl substituted by one or more (e.g. 1, 2 or 3) halogen or cyano groups (e.g. -CH₂-CF₃ or CH₂CN);

-C₀₋₄ alkyl-C₃₋₈cycloalkyl (e.g. cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl or cyclopropylmethyl);

-C₂₋₄ alkyl-oxy-C₁₋₄ alkyl (e.g. methoxyethyl); or

-C₁₋₄ alkyl-aryl (e.g. benzyl) optionally substituted by a halogen (e.g. fluorine) atom.

Please amend the paragraph on page 15, lines 20-34 of the specification to read as follows:

Description 1

3-Bromo-8-(4-methyl-piperazin-1-yl)-quinoline (D1)

bis-(2-Chloroethyl)-methyl-amine hydrochloride (3.7g, 19.2mmol) and sodium carbonate (9.0g, 85mmol) were added to a suspension of 3-bromo-quinolin-8-ylamine (3.9g, 17.5mmol) (for synthesis see Gershon *et al.*, *Monatsh. Chem.*, 1991, 122, 935) in *n*-butanol (70ml). The stirred suspension was heated at reflux for 72h. The reaction mixture was cooled to ambient temperature, diluted with dichloromethane (300ml) and the solution washed with water (300ml), dried (MgSO₄) and concentrated *in vacuo* to an oil. The oil was purified by chromatography over silica gel eluting with a gradient of methanol/dichloromethane to afford the title compound (D1) as an oil (2.6g, 8.5mmol, 49%);

δ_H (CDCl₃) 2.43 (3H, s), 2.78 (4H, br s), 3.44 (4H, br, s), 7.14 (1H, d, J = 6.8Hz), 7.33 (1H, d, J = 7.4Hz), 7.47 (1H, dd, J = 7.8Hz), 8.25 (1H, d, J = 2.3Hz), 8.85 (1H, d, J = 2.3Hz).

Mass Spectrum : C₁₄H₁₆BrN₃ requires 305/307; found 306/308 (MH⁺).

Please amend the paragraph on page 18, lines 13-30 of the specification to read as follows:

Description 6

8-Iodo-3-phenylsulfonylquinoline (D6)

From 8-Amino-3-phenylsulfonylquinoline (D5) (~~31.6 g, 0.11 mol~~) was dissolved in trifluoroacetic acid (60 ml) and the mixture evaporated. The resulting brown oil was dissolved in acetonitrile (200 ml) and added dropwise to a stirred solution of using *n*-butyl nitrite (6.1 ml) in acetonitrile (300 ml) maintained at a temperature of <5 °C. Once the addition was completed, the mixture was stirred for five minutes then followed by tetra-(*n*-butyl)ammonium iodide, (82 g, 0.22 mol) added portionwise, keeping the temperature below 10 °C. The mixture was stirred for a further 20 minutes then concentrated *in vacuo*. The dark residue was subjected to flash 75 chromatography (2 kg silica gel), eluting with hexane and dichloromethane to give a brown solid. This was dissolved in dichloromethane (500 ml) and washed with 10% aqueous sodium thiosulphate (2 x 300 ml), dried over magnesium sulphate

~~and concentrated to an orange solid. This was triturated with methanol to give the title compound (D6) (25.2 g, 75%) as a light yellow solid;~~

δ_H (CDCl₃) 7.39 (1H, t), 7.53-7.63 (3H, m), 7.96 (1H, d), 8.04 (2H, dd), 8.50 (1H, dd), 8.79 (1H, d), 9.32 (1H, d); Mass Spectrum : C₁₅H₁₀NO₂SI requires 395; found 396 (MH⁺).

Please amend the paragraph on page 20, lines 24-42 of the specification to read as follows:

Description 10

8-(4-Methyl-piperazin-1-yl)-3-phenylsulfonylquinoline hydrochloride(D10)

A solution of 8-amino-3-phenylsulfonylquinoline (D5) (38.8 g, 137 mmol) in [~~tert-butanol~~] n-butanol (360 ml) was treated with *bis*-(2-chloroethyl)-methyl-amine hydrochloride (40 g, 138 mmol) and sodium carbonate (72 g, 0.68 mol). The mixture was heated to a vigorous reflux (~100 °C) for 16 h then a further portion of *bis*-(2-chloroethyl)-methyl-amine hydrochloride (25 g, 86 mmol) introduced and heating continued for a further 4 h. The solution was cooled and a 1:1 mixture of saturated aqueous sodium bicarbonate and aqueous 10% sodium thiosulphate solution (2 L) added. Stirring was continued at ambient temperature for 16 h then the aqueous phase was extracted with dichloromethane (3 x 500 ml), the combined organic phase dried over magnesium sulphate, evaporated *in vacuo* and subjected to chromatography on a Biotage Flash 75 apparatus (1 kg Silica gel) to afford the free base form of the title compound (11.6 g), identical spectroscopically to that prepared by D9.

A portion of this material was treated with 1M HCl in ether then evaporated to afford the hydrochloride salt (D10) as a yellow solid;

δ_H (CDCl₃) 2.95 (3H, d), 2.38-3.52 (4H, m), 4.01-4.06 (2H, m), 4.19-4.26 (2H, m), 7.60 (2H, t), 7.70 (1H, t), 7.96 (1H, t), 8.07 (2H, s), 8.09 (2H, s), 9.34 (1H, d), 9.63 (1H, d), 12.9 (1H, br s).

Please amend the paragraph on page 21, lines 21-32 of the specification to read as follows:

Description 11 (Alternative Procedure)

3-Phenylsulfonyl-8-piperazin-1-yl-quinoline hydrochloride (D11)

A mixture of 8-(4-*t*-butoxycarbonyl)piperazin-1-yl-3-phenylsulfonylquinoline (D7) (~~35.7 g, 78.8 mmol~~), 1,4-dioxane (~~200 ml~~) and 4 M aqueous HCl (~~200 ml~~), was stirred at ambient temperature for two hours, then the solvent evaporated. The residue was co-evaporated several times from toluene and the remainder crystallised from hot ethanol to give the title compound (D11) (~~18.9 g, 68%~~) as a yellow crystalline solid;

δ_{H} (d_6 -DMSO) 3.32 (4H, br s), 3.55 (4H, br s), 7.35 (1H, d, $J = 6.5\text{Hz}$), 7.63-7.77 (4H, m), 7.86 (1H, d, $J = 7.4\text{Hz}$), 8.10 (2H, m), 9.10 (1H, d, $J = 2.4\text{Hz}$), 9.21 (2H, s), 9.24 (1H, d, $J = 2.4\text{Hz}$);

Mass Spectrum : $\text{C}_{19}\text{H}_{19}\text{N}_3\text{O}_2\text{S}$ requires 353; found 354 (MH^+);

m.p. 200°C (phase change), $270\text{-}274^\circ\text{C}$ (decomposed)

Please amend the compound name for Example 8 on page 25, line 1 of the specification to read as follows:

8-(4-(2,2,2-Trifluoroethyl)-piperazin-1-yl)-3-(4-fluoro)-phenylsulfonylquinoline (E8)